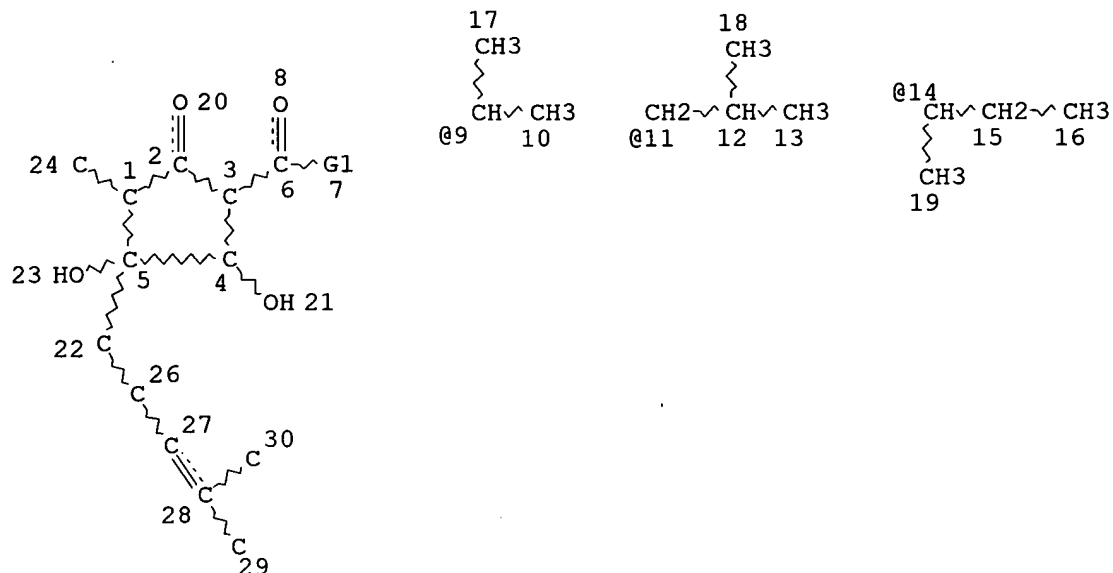


PCT/06216

(FILE 'REGISTRY' ENTERED AT 12:19:59 ON 20 APR 2005)

L1 STR



VAR G1=9/11/14

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

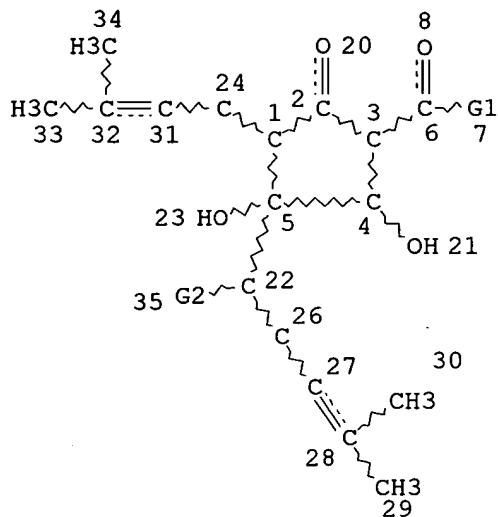
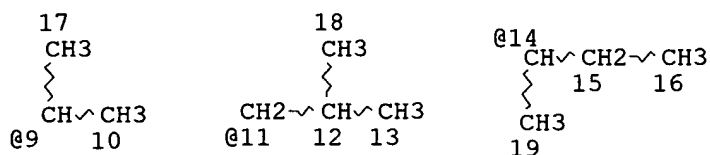
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

L2 ( 55)SEA FILE=REGISTRY SSS FUL L1

L3 STR



VAR G1=9/11/14

VAR G2=C/O

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L4 46 SEA FILE=REGISTRY SUB=L2 SSS FUL L3

100.0% PROCESSED 55 ITERATIONS

46 ANSWERS

SEARCH TIME: 00.00.01

FILE 'CAPLUS' ENTERED AT 12:22:48 ON 20 APR 2005

L5 266 S L4

L6 8 S L5 AND ?INFLAMM?

L7 44 S L5 AND (TREAT? OR THERAP? OR PREVENT?)

L8 1 S L7 AND ADMIN?

L9 8 S L6 OR L8

L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:936070 CAPLUS

DOCUMENT NUMBER: 141:400871

TITLE: Anti-inflammatory pharmaceutical compositions for reducing inflammation and the treatment or prevention of gastric toxicity

INVENTOR(S): Babish, John G.; Tripp, Matthew L.; Bland, Jeffrey

S.; Howell, Terrence; Darland, Gary K.; Lerman,  
 Robert H.; Lukaczer, Daniel O.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part of  
 U.S. Ser. No. 689,856.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004219240	A1	20041104	US 2004-774048	20040205
US 2003008021 ✓	A1	20030109	US 2001-885721	20010620
US 2004086580	A1	20040506	US 2003- <u>464410</u>	20030618
US 2004115290	A1	20040617	US 2003- <u>464834</u>	20030618
US 2004151792	A1	20040805	US 2003-689856	20031020
PRIORITY APPLN. INFO.:			US 2001-885721	A2 20010620
			US 2002-420383P	P 20021021
			US 2003-450237P	P 20030225
			US 2003-400293	B2 20030326
			US 2003-401283	B2 20030326
			US 2003-472460P	P 20030522
			US 2003-464410	A2 20030618
			US 2003-464834	A2 20030618
			US 2003-689856	A2 20031020

OTHER SOURCE(S): MARPAT 141:400871

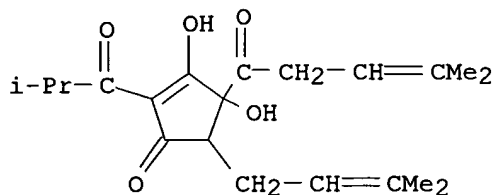
AB The invention provides hops ( Humulus lupulus ) exts. or derivs.  
 thereof, such as humulone, cohumulone, adhumulone, isohumulone, etc.,  
 for use in treating a patient prophylactically and/or therapeutically  
 for ulcerogenic-type disorders of the stomach and/or intestines. The  
 ulcerogenic disorders can be induced chemical, environmentally, by  
 infection, and/or by stress. The invention also provides a  
 pharmaceutical composition comprising an active amount of hops exts. or  
 derivs. thereof, in combination with an analgesic compound and/or an  
 anti-inflammatory compound The invention further provides for  
 use of hops exts. or derivs. thereof, significantly reducing and/or  
 therapeutically treating ulcerogenic-type disorders of the stomach  
 and/or intestines. For example, the hop preparation Redihop containing  
 rho-iso- $\alpha$ -acids when combined with NSAIDs (ibuprofen and  
 aspirin) not only attenuated the gastropathy of NSAIDs by decreasing  
 an inhibition of PGE2 synthesis in AGS human gastric mucosal cells,  
 but also increased therapeutic indexes of both ibuprofen and aspirin.

IT 25269-20-9, Isocohumulone 25422-83-7, Isoadhumulone  
 25522-96-7, Isohumulone 790664-64-1,  
 Dihydroisocohumulone 790664-65-2, Dihydroisoadhumulone  
 RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL  
 (Biological study); OCCU (Occurrence); USES (Uses)  
 (comps. containing antiulcer hops preparation and NSAID for reducing

## inflammation and gastrointestinal toxicity)

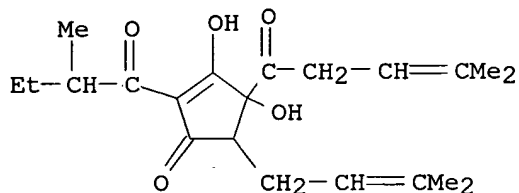
RN 25269-20-9 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



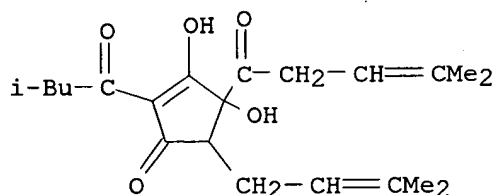
RN 25422-83-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



RN 25522-96-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



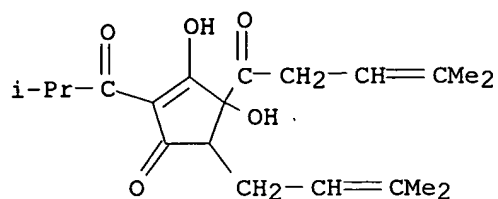
RN 790664-64-1 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)-, dihydro deriv. (9CI) (CA INDEX NAME)

CM 1

CRN 25269-20-9

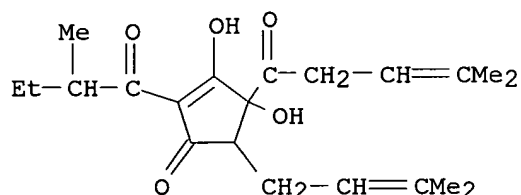
CMF C20 H28 O5



RN 790664-65-2 CAPLUS  
 CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)-, dihydro deriv. (9CI) (CA INDEX NAME)

CM 1

CRN 25422-83-7  
 CMF C21 H30 O5



L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:633066 CAPLUS  
 DOCUMENT NUMBER: 141:179610  
 TITLE: pharmaceutical and nutraceutical compositions containing extracts from hop and rosemary for treatment and prevention of **inflammatory** -related disorders  
 INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.; Darland, Gary K.; Lerman, Robert; Lukaczer, Daniel O.; Liska, Deann J.; Howell, Terrence  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 66 pp., Cont.-in-part of U.S. Pat. Appl. 2004 86,580.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004151792	A1	20040805	US 2003-689856	20031020
US 2003008021	A1	20030109	US 2001-885721	20010620
US 2004086580	A1	20040506	US 2003-464410	20030618
US 2004115290	A1	20040617	US 2003-464834	20030618
US 2004219240	A1	20041104	US 2004-774048	20040205
PRIORITY APPLN. INFO.:			US 2001-885721	A2 20010620

US 2002-420383P	P	20021021
US 2003-450237P	P	20030225
US 2003-400293	B2	20030326
US 2003-401283	B2	20030326
US 2003-464410	A2	20030618
US 2003-464834	A2	20030618
US 2003-472460P	P	20030522
US 2003-689856	A2	20031020

OTHER SOURCE(S): MARPAT 141:179610

AB A natural formulation of compds. that would to modulate **inflammation** is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit **inflammatory** response selectively in target cells. The compns. containing at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof. For example, an oral dietary supplement containing isocohumulone, dihydroadhumulone, tetrahydroisocohumulone, hexahydroisohumulone from rosemary was found to be able to normalization the joint function after two to ten doses.

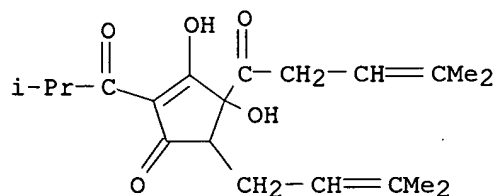
IT 25269-20-9, Isocohumulone 25422-83-7, Isoadhumulone 25522-96-7, Isohumulone

RL: FFD (Food or feed use); NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(pharmaceutical and nutraceutical compns. containing exts. of hop and rosemary and triterpenes and diterpene lactones for treatment and prevention of **inflammatory**-related disorders)

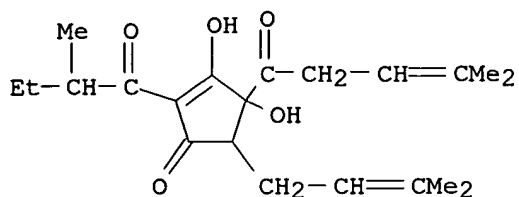
RN 25269-20-9 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



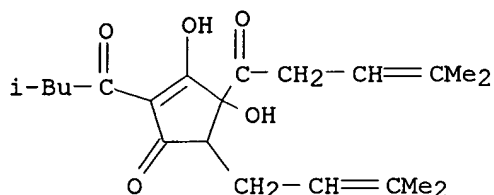
RN 25422-83-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



RN 25522-96-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:569687 CAPLUS

DOCUMENT NUMBER: 141:111612

TITLE: Hop extracts as anti-inflammatory cyclooxygenase-2-selective inhibitors

INVENTOR(S): Kuhrts, Eric H.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004137096	A1	20040715	US 2003-340183	20030109
WO 2004062611	A2	20040729	WO 2004-US613	20040109

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ

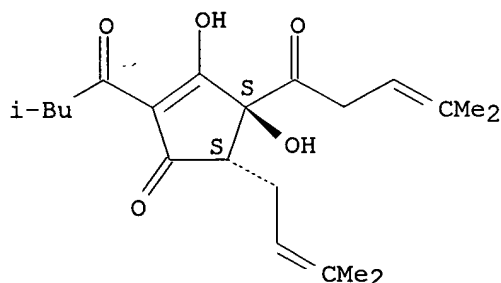
PRIORITY APPLN. INFO.: US 2003-340183 A 20030109

AB Disclosed is a novel anti-inflammatory pharmaceutical composition that exhibits potent and selective inhibition of the cyclooxygenase-2 (COX-2) enzyme. The formulation consists of a hops extract that exhibits COX-2 selectivity as defined by dividing the IC50 COX-2/IC50COX-1 concns. that are determined by testing with the William Harvey Whole Blood Assay (WHMA), and fall in the range 0.011-0.2. Such compns. may also optionally contain high levels of  $\alpha$ -acids and low levels of

$\beta$ -acids, some flavonoid compds., and virtually no essential oils. Such compns. are useful for treating conditions that manifest as **inflammatory** pain, or are impacted by the COX-2 enzyme. The compns. are particularly beneficial for treating osteoarthritis and rheumatoid arthritis, and can be used for chronic pain with reduced gastric side-effects. A hops extract contained  $\alpha$ -acids 88,  $\beta$ -acids 3.2, and iso- $\alpha$  acids 3%. The hops extract was more potent and selective than ibuprofen for inhibition of COX-2.

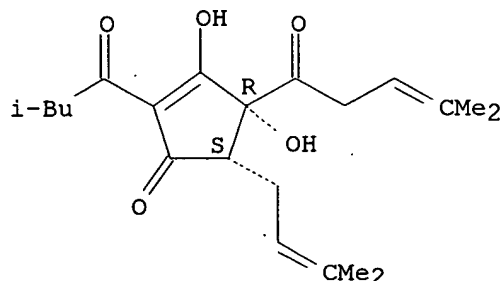
IT ~~467-72-1, Trans-Iso-humulone 1534-03-8, cis-Iso-humulone 25269-20-9, Iso-cohumulone 25422-83-7, Iso-adhumulone 25522-96-7, Iso-humulone 58501-77-2, Trans-Iso-cohumulone 68107-76-6, Trans-Iso-adhumulone 68127-23-1, cis-Iso-cohumulone 96614-01-6, cis-Iso-adhumulone~~  
 RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (hop exts. as anti-**inflammatory** cyclooxygenase-2-selective inhibitors)  
 RN 467-72-1 CAPLUS  
 CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)-, (4S,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



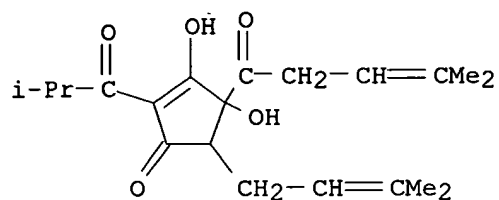
RN 1534-03-8 CAPLUS  
 CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)-, (4R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



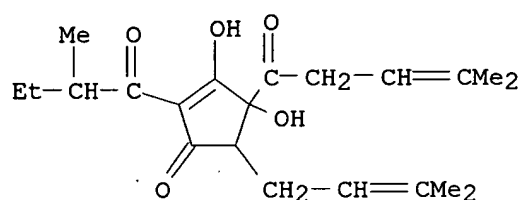
RN 25269-20-9 CAPLUS  
 CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)





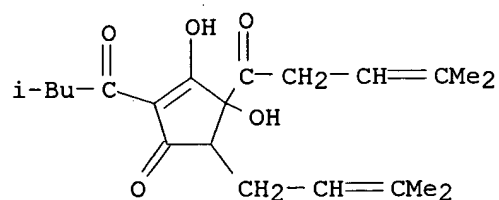
RN 25422-83-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



RN 25522-96-7 CAPLUS

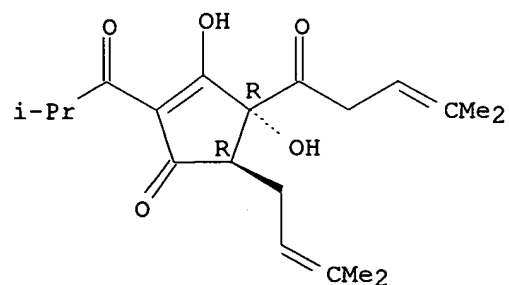
CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



RN 58501-77-2 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)-, (4R,5R)-rel- (9CI) (CA INDEX NAME)

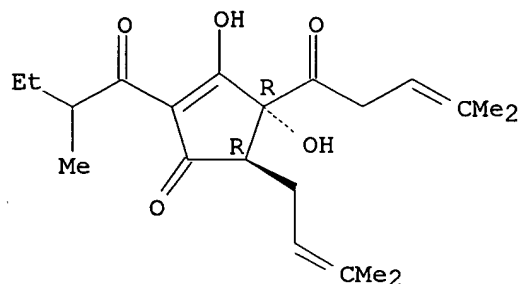
Relative stereochemistry.



RN 68107-76-6 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)-, (4R,5R)-rel- (9CI) (CA INDEX NAME)

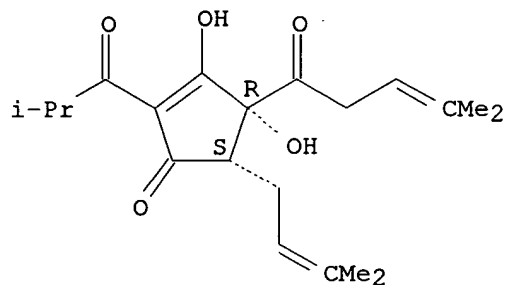
Relative stereochemistry.  
Currently available stereo shown.



RN 68127-23-1 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)-, (4R,5S)-rel- (9CI) (CA INDEX NAME)

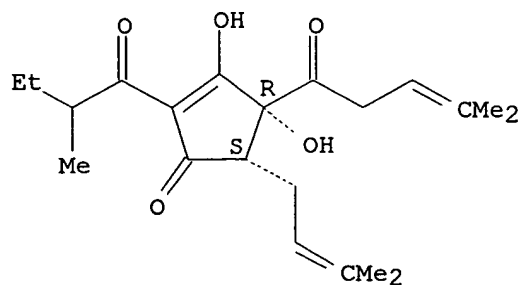
Relative stereochemistry.



RN 96614-01-6 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)-, (4R,5S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.  
Currently available stereo shown.



L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:493479 CAPLUS

DOCUMENT NUMBER: 141:33790

TITLE: Modulation of **inflammation** by hops fractions and derivatives

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.; Darland, Gary K.; Lerman, Robert; Lukaczer, Daniel O.; Liska, DeAnn J.; Howell, Terrence

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 26 pp., Cont.-in-part of US Ser. No. 400,293, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004115290	A1	20040617	US 2003-464834	20030618
US 2003008021	A1	20030109	US 2001-885721	20010620
WO 2004037180	A2	20040506	WO 2003-US33362	20031020
WO 2004037180	A3	20040930		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004151792	A1	20040805	US 2003-689856	20031020
US 2004219240	A1	20041104	US 2004-774048	20040205
PRIORITY APPLN. INFO.:			US 2001-885721	A2 20010620
			US 2002-420383P	P 20021021
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			US 2003-400293	B2 20030326
			US 2003-401283	B2 20030326
			US 2003-472460P	P 20030522
			US 2003-464410	A 20030618
			US 2003-464834	A 20030618
			US 2003-689856	A2 20031020

OTHER SOURCE(S): MARPAT 141:33790

AB A natural formulation of compds. for the modulation of **inflammation** is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively

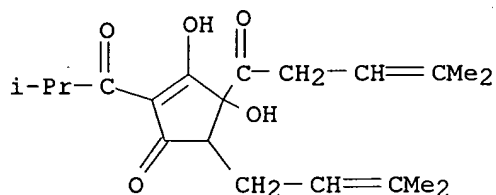
in target cells, and inhibit **inflammatory** response selectively in target cells. The compns. contain at least one fraction isolated or derived from hops.

IT 25269-20-9, Isocohumulone 25422-83-7, Isoadhumulone 25522-96-7, Isohumulone

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(hops fractions and derivs. for modulation of **inflammation**)

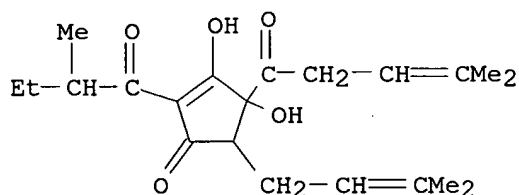
RN 25269-20-9 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



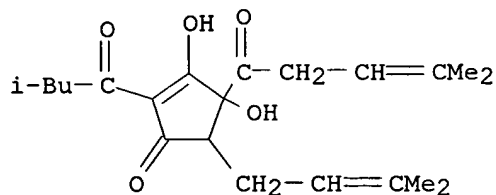
RN 25422-83-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



RN 25522-96-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:372602 CAPLUS

DOCUMENT NUMBER: 140:368679

TITLE: Synergistic compositions that treat or inhibit pathological conditions associated with **inflammatory** response

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey

PATENT ASSIGNEE(S): S.; Darland, Gary K.; Lerman, Robert; Lukaczer, Daniel O.; Liska, Deann J.; Howell, Terrence  
 SOURCE: USA  
 U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of  
 U.S. Ser. No. 400,293, abandoned.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004086580	A1	20040506	US 2003-464410	20030618
WO 2004037180	A2	20040506	WO 2003-US33362	20031020
WO 2004037180	A3	20040930		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004151792	A1	20040805	US 2003-689856	20031020
US 2004219240	A1	20041104	US 2004-774048	20040205
PRIORITY APPLN. INFO.:			US 2002-420383P	P 20021021
			US 2003-450237P	P 20030225
			US 2003-400293	B2 20030326
			US 2003-401283	B2 20030326
			US 2001-885721	A2 20010620
			US 2003-472460P	P 20030522
			US 2003-464410	A 20030618
			US 2003-464834	A 20030618
			US 2003-689856	A2 20031020

OTHER SOURCE(S): MARPAT 140:368679

AB A natural formulation of compds. that would modulate **inflammation** is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit **inflammatory** response selectively in target cells. The compns. contains at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof. For example, a

synergistic inhibition of PGE2 synthesis in target cells by hop CO2 extract containing 30 to 60% alpha-acids and 15 to 45% beta-acids in combination with triterpenoids oleanolic acid and ursolic acid was exhibited.

IT 25269-20-9, Isocohumulone 25422-83-7, Isoadhumulone

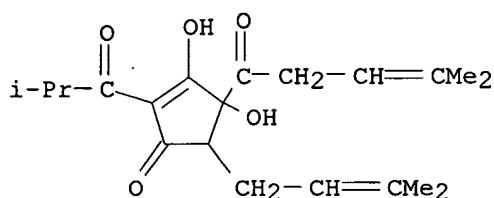
25522-96-7, Isohumulone

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synergistic compns. comprising fraction derived from hops and rosemary or its components for modulation of **inflammation**)

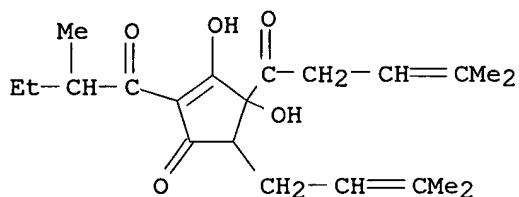
RN 25269-20-9 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



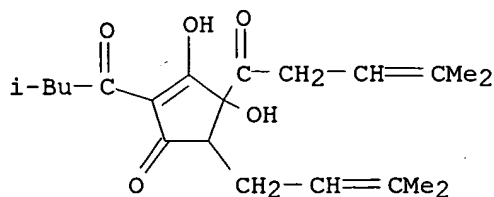
RN 25422-83-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



RN 25522-96-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:368873 CAPLUS

DOCUMENT NUMBER: 140:368677

TITLE: Compositions using hops- and rosemary-derived components, triterpenes, and other compounds for

the treatment of pathological conditions associated with **inflammatory** response

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.; Darland, Gary; Lerman, Robert; Lukaczer, Daniel O.; Liska, Deann J.; Howell, Terrence

PATENT ASSIGNEE(S): Metaproteomics, LLC, USA

SOURCE: PCT Int. Appl., 186 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004037180	A2	20040506	WO 2003-US33362	20031020
WO 2004037180	A3	20040930		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004086580	A1	20040506	US 2003-464410	20030618
US 2004115290	A1	20040617	US 2003-464834	20030618
PRIORITY APPLN. INFO.:			US 2002-420383P	P 20021021
			US 2003-450237P	P 20030225
			US 2003-400293	A 20030326
			US 2003-401283	A 20030326
			US 2003-464410	A 20030618
			US 2003-464834	A 20030618
			US 2001-885721	A2 20010620

OTHER SOURCE(S): MARPAT 140:368677

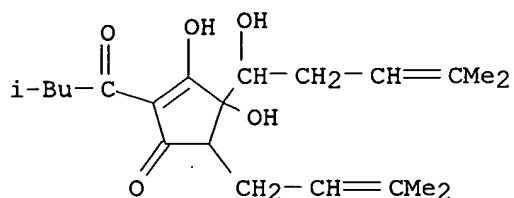
AB A natural formulation of compds. for modulating **inflammation** is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit **inflammatory** response selectively in target cells. The compns. contain at least one fraction isolated or derived from hops. Other embodiments disclose combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof.

IT **24149-26-6D**, derivs. **25269-20-9**, Isocohumulone  
**25422-83-7**, Isoadhumulone **25522-96-7**, Isohumulone  
**312925-21-6D**, derivs.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(hops- and rosemary-derived components, triterpenes, and other  
compds. for treatment of diseases associated with **inflammatory**  
response)

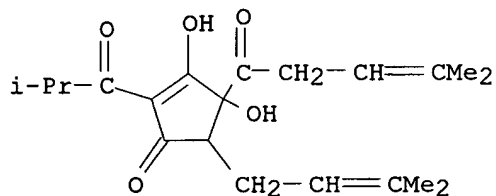
RN 24149-26-6 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-4-(1-hydroxy-4-methyl-3-pentenyl)-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)- (9CI) (CA INDEX NAME)



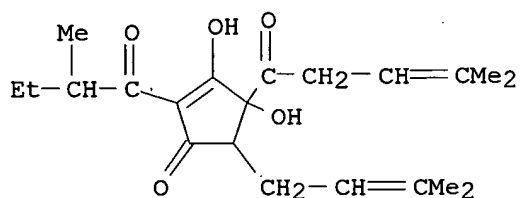
RN 25269-20-9 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-4-(4-methyl-1-oxo-3-pentenyl)-2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



RN 25422-83-7 CAPLUS

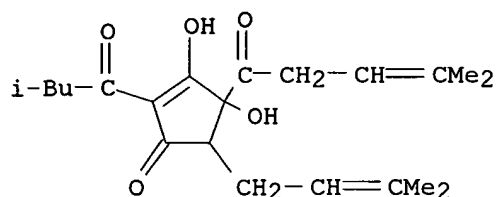
CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



RN 25522-96-7 CAPLUS

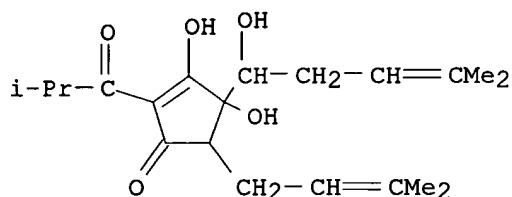
CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)





RN 312925-21-6 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-4-(1-hydroxy-4-methyl-3-pentenyl)-5-(3-methyl-2-butenyl)-2-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)



L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:334851 CAPLUS

DOCUMENT NUMBER: 138:331695

TITLE: Curcuminoid compositions exhibiting synergistic inhibition of the expression and/or activity of cyclooxygenase-2

INVENTOR(S): Babish, John G.; Howell, Terrence; Pacioretty, Linda

PATENT ASSIGNEE(S): Metaproteomics, LLC, USA

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003035007 ✓	A2	20030501	WO 2002-US34456	20021025
WO 2003035007	A3	20030918		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003096027	A1	20030522	US 2002-282236	20021025
EP 1446136	A2	20040818	EP 2002-784313	20021025
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

NZ 532560	A	20050225	NZ 2002-532560	20021025
JP 2005506996	T2	20050310	JP 2003-537576	20021025
PRIORITY APPLN. INFO.:			US 2001-335062P	P 20011026

WO 2002-US34456	W 20021025
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AB An oral, parenteral, or topical formulation is provided that serves to inhibit the **inflammatory** response in animals, including humans. The formulation comprises, as a first component an effective amount of a curcuminoid species and an effective amount of a second component selected from the group consisting of  $\alpha$ - or  $\beta$ -acid species or their derivs. The composition provides synergistic anti-**inflammatory** effects in response to phys. or chemical injury or abnormal immune stimulation due to a biol. agent or unknown etiol. For example, an oral formulation containing curcumin 15 mg/kg per day and humulone 6 mg/kg per day was **administered** to patients with early stage of colon cancer, with expectation of decreasing the tumor incidence with respect to control group.

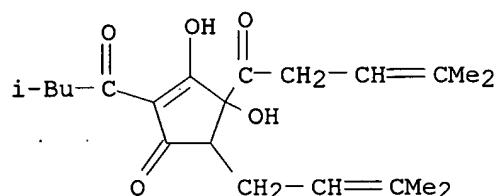
IT **25522-96-7, Isohumulone 122694-32-0**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synergistic inhibition of cyclooxygenase-2 by curcuminoid combinations with  $\alpha$ - or  $\beta$ -acids from hops for **treatment of inflammation**)

RN 25522-96-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



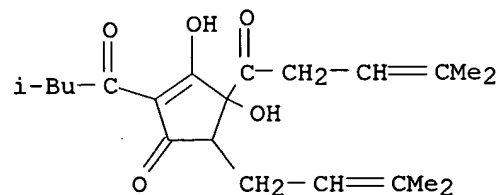
RN 122694-32-0 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-1-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)-, dihydro deriv. (9CI) (CA INDEX NAME)

CM 1

CRN 25522-96-7

CMF C21 H30 O5



L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:5716 CAPLUS  
 DOCUMENT NUMBER: 138:61290  
 TITLE: Complex mixtures exhibiting selective inhibition  
 of cyclo-oxygenase-2  
 INVENTOR(S): Babish, John G.; Howell, M. Terrence  
 PATENT ASSIGNEE(S): Metaproteomics, LLC, USA  
 SOURCE: PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000185	A2	20030103	WO 2002-US19617	20020620
WO 2003000185	A3	20040311		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2003008021	A1	20030109	US 2001-885721	20010620
EP 1423132	A2	20040602	EP 2002-737562	20020620
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004534806	T2	20041118	JP 2003-506631	20020620
✓ US 2003113393	A1	20030619	US 2002-280198	20021024
US 2005042317	A1	20050224	US 2004-480145	20041013
PRIORITY APPLN. INFO.:			US 2001-885721	A 20010620
			WO 2002-US19617	W 20020620

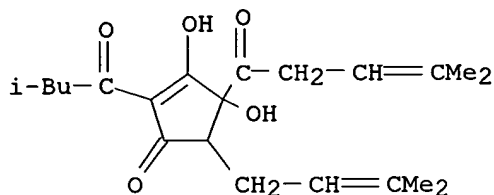
AB A novel formulation is provided that serves to specifically inhibit the COX-2 mediated **inflammatory** response in animals. The formulation comprises comprising an effective amount of component I selected from the group consisting of alpha acids and beta acids and an effective amount of at least one component II selected from the group consisting of alpha acids, beta acids, essential oils, fats and waxes, with the proviso that component I and II are not the same compound. The composition provides specific inhibition of cyclo-oxygenase-2 with little or no effect on cyclo-oxygenase-1. Superior cyclo-oxygenase-2 selectivity of CO2 hops exts. compared to humulone is shown.

IT 25522-96-7, Isohumulone

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (complex mixts. exhibiting selective inhibition of cyclo-oxygenase-2)

RN 25522-96-7 CAPLUS

CN 2-Cyclopenten-1-one, 3,4-dihydroxy-5-(3-methyl-2-butenyl)-2-(3-methyl-1-oxobutyl)-4-(4-methyl-1-oxo-3-pentenyl)- (9CI) (CA INDEX NAME)



FILE 'CAOLD' ENTERED AT 12:27:56 ON 20 APR 2005  
 L10 36 S L4

L10 ANSWER 1 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA63:7623a CAOLD  
 TI isohumulones  
 AU Verzele, Marc; Anteunis, M.; Alderweireldt, F.  
 IT 467-72-1 1533-83-1 1533-84-2 1534-03-8

L10 ANSWER 2 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA63:508a CAOLD  
 TI isomerization products of humulone  
 AU Alderwiereldt, Frank; Verzele, M.; Anteunis, M.; Dierckens, J.  
 IT 467-72-1 469-02-3 1533-83-1 1533-84-2  
 1534-03-8 3465-84-7

L10 ANSWER 3 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA62:9094g CAOLD  
 TI hop constituents - (XXIV) structure of the isohumulones  
 AU Ashurst, Philip R.; Whitear, A. L.  
 IT 1053-04-9 6817-31-8 6866-81-5 91841-24-6

L10 ANSWER 4 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA61:1767d CAOLD  
 TI humulinone  
 AU Meheus, J.; Alderweireldt, F.; Verzele, M.  
 IT 981-03-3 88855-63-4 88855-66-7

L10 ANSWER 5 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA58:14361a CAOLD  
 TI separation and identification of hop bittering principles  
 AU Simmonds, David H.; Wilson, P. L.  
 IT 3167-35-9 25269-20-9

L10 ANSWER 6 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA57:17211h CAOLD  
 TI hop bitter substances and their transformation during the brewing process  
 AU Lloyd, Robert O. V.  
 IT 468-62-2 981-03-3

L10 ANSWER 7 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA57:10357i CAOLD  
 TI reversed-phase paper chromatography of hop resins  
 AU Whitear, Anthony L.  
 IT 981-03-3 1891-34-5

L10 ANSWER 8 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA55:22707c CAOLD  
 TI evaluation of yeast-factors affecting flocculation of yeast

AU Umeda, Yasuo; Taguchi, M.  
IT 25522-96-7

L10 ANSWER 9 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
AN CA55:19917f CAOLD  
TI study of the isomerization of  $\alpha,\beta$  and  $\beta,\gamma$ -  
unsatd. ketones  
AU Anteunis, M.  
IT 521-48-2 569-83-5 4168-01-8 6754-58-1 13389-88-3 23783-79-1  
25522-96-7 49784-69-2 100612-23-5 101109-98-2 102447-96-1  
102448-00-0 102592-06-3 107328-78-9 108840-71-7 110663-40-6  
111385-02-5 112599-37-8 113949-91-0

L10 ANSWER 10 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
AN CA55:13766a CAOLD  
TI hop exts. for bittering of beer  
PA Brewing Patents Ltd.; Hall, R. D.; Howard, G. A.  
DT Patent  
PATENT NO. KIND DATE  
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PI GB 855401  
IT 25269-20-9 25422-83-7 25522-96-7

L10 ANSWER 11 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
AN CA55:2996b CAOLD  
TI analysis of hop bitter substances  
AU Hudson, J. R.; Cooper, A. H.  
IT 25522-96-7

L10 ANSWER 12 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
AN CA55:897c CAOLD  
TI production of beer  
AU Hough, J. S.  
IT 25522-96-7

L10 ANSWER 13 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
AN CA54:24445h CAOLD  
TI hop constituents - (XIV) 2,4-diacetyl-3,4-dihydroxy-5-methylcyclopent-  
2-enone, an analog of isohumulone A  
AU Brown, P. Margaret; Howard, G. A.  
IT 467-72-1 13197-10-9 13383-63-6 99186-98-8 100378-75-4  
100709-46-4 101167-82-2 101294-15-9 106272-37-1 106472-44-0  
108372-66-3

L10 ANSWER 14 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
AN CA54:20902f CAOLD  
TI structure of humulinone  
AU Shoolery, James N.; Verzele, M.; Alderweireldt, F.  
IT 981-03-3 113183-84-9

L10 ANSWER 15 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
AN CA54:20078a CAOLD  
TI beer, etc.  
AU Coutts, Morton W.  
PA Dominion Breweries, Ltd.  
DT Patent  
TI stable hops preparation containing optimum amts. of isohumulone  
AU Schick, F. Wilhelm  
DT Patent

	PATENT NO.	KIND	DATE
PI	DE 1013249		
PI	DE 1036193		
IT	25522-96-7		
L10	ANSWER 16 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA54:16735e	CAOLD	
TI	solubility of iso-compds. in water and their state in solution		
AU	Rudin, A. D.		
IT	467-72-1	25269-20-9	25422-83-7
	25522-96-7		
L10	ANSWER 17 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA54:12474b	CAOLD	
TI	metal derivs. of isohumulone-preparation of isohumulone A		
AU	Hudson, J. R.; Rudin, A. D.; Howard, G. A.		
IT	128442-25-1	128871-56-7	129035-20-7
L10	ANSWER 18 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA54:7967i	CAOLD	
TI	trouble in the operation of mash rectifying equipment		
AU	Khshanovskii, F. A.		
IT	25522-96-7		
L10	ANSWER 19 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA54:5006b	CAOLD	
TI	$\alpha$ -acids of hops in production of beer		
AU	Blachowa, Maria; Dylkowski, W.; Golebiewski, T.		
IT	25522-96-7		
L10	ANSWER 20 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA53:20122a	CAOLD	
TI	isomerization of humulone		
AU	Anteunis, M.; Verzele, M.		
IT	520-40-1	1534-03-8	
L10	ANSWER 21 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA53:18379f	CAOLD	
TI	clarification of wort and beer by centrifuging - (I) wort		
AU	Vacano, N. L.		
IT	25522-96-7		
L10	ANSWER 22 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA53:15467b	CAOLD	
TI	ferments preparation in distilleries		
AU	Fertman, G. I.		
IT	25522-96-7		
L10	ANSWER 23 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA53:14411e	CAOLD	
TI	rearrangement products of humulone		
AU	Spetsig, Lars O.		
IT	511-25-1	25522-96-7	71800-99-2
L10	ANSWER 24 OF 36	CAOLD	COPYRIGHT 2005 ACS on STN
AN	CA53:12331i	CAOLD	
TI	hop constituents - (XIII) hydrogenation of isohumulone		
AU	Brown, P. Margaret; Howard, G. A.; Tatchell, A. R.		

IT 3613-60-3 25522-96-7 28815-20-5 34421-27-7

L10 ANSWER 25 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA53:10658h CAOLD  
 TI isohumulones in beer  
 AU Owades, Joseph L.; Jakovac, J.; Brenner, M. W.  
 IT 25522-96-7

L10 ANSWER 26 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA53:9566c CAOLD  
 TI Weiner's process for preserving and improving of hops  
 AU Clerck, Jean de; Jerumanis, J.  
 IT 25522-96-7

L10 ANSWER 27 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA53:4647e CAOLD  
 TI controlling the isohumulon content and the taste of beer  
 AU Isebaert, L.; Ingels, A.  
 DT Patent  
 IT 25522-96-7

L10 ANSWER 28 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA53:4647c CAOLD  
 TI Ni in foam stability  
 AU Luykx, Josepha M. M.; Veldhuizen, H. van  
 IT 25522-96-7

L10 ANSWER 29 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA52:19010a CAOLD  
 TI resolution of hop bitter substances by reversed-phase partition chromatography  
 AU Spetsig, Lars O.; Steninger, M.; Brohult, S.  
 IT 25522-96-7

L10 ANSWER 30 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA52:12818e CAOLD  
 TI hop constituents - (XII) structure of humulinone  
 AU Howard, George A.; Slater, C. A.  
 IT 201-65-0 475-35-4 511-04-6 981-03-3 3312-24-1  
 7127-69-7 33759-62-5 102443-98-1 112507-74-1 112507-76-3 119572-54-2  
 121760-09-6

L10 ANSWER 31 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA52:1075h CAOLD  
 TI structure of humulinone  
 AU Alderweireldt, Frank; Verzele, M.  
 IT 469-30-7 504-85-8 520-40-1 981-03-3  
 25522-96-7 92077-87-7

L10 ANSWER 32 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA51:18464c CAOLD  
 TI bitter substances of hops during the brewing process  
 AU Brohult, Sven; Steninger, M.; Olund, G.  
 TI constituents of hops - (IV) constituents of hops and their transformation on brewing  
 AU David, Serge; Duchemin, J.  
 IT 25522-96-7

L10 ANSWER 33 OF 36 CAOLD COPYRIGHT 2005 ACS on STN

AN CA51:18464a CAOLD  
 TI alkaline pretreatment of hops  
 AU Kolbach, P.  
 TI proteolytic enzymes of barley and malt and the heat stability of the  
 proteolytic malt enzyme  
 AU Kringstad, Hans; Olsen, J.  
 IT 25522-96-7

L10 ANSWER 34 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA51:17088e CAOLD  
 TI foam properties of beer  
 AU Kloppe, W. J.  
 IT 25522-96-7

L10 ANSWER 35 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA51:13776g CAOLD  
 TI hop constituents - (X) structure of a degradation product of  
 humulinone  
 AU Howard, George A.; Slater, C. A.  
 IT 981-03-3 101499-37-0 102443-98-1

L10 ANSWER 36 OF 36 CAOLD COPYRIGHT 2005 ACS on STN  
 AN CA51:3922a CAOLD  
 TI paper chromatography of the bitter acids and the resins of hops  
 AU Schild, Ernst; Raum, H.  
 IT 25522-96-7

FILE 'USPATFULL' ENTERED AT 12:28:22 ON 20 APR 2005

L11 20 S L4  
 L12 9 S L11 AND ?INFLAMM?  
 L13 18 S L11 AND (TREAT? OR THERAP? OR PREVENT?)  
 L14 10 S L13 AND ADMIN?  
 L15 10 L12 OR L14

L15 ANSWER 1 OF 10 USPATFULL on STN  
 ACCESSION NUMBER: 2005:49525 USPATFULL  
 TITLE: Complex mixtures exhibiting selective inhibition of  
 cyclooxygenase-2  
 INVENTOR(S): Babish, John G, Brooktondale, NY, UNITED STATES  
 Howell, Terrence M, Lansing, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005042317	A1	20050224
APPLICATION INFO.:	US 2004-480145	A1	20041013 (10)
	WO 2002-US19617		20020620

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-9885721	20010620
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	McDermott Will & Emery, 4370 La Jolla Village Drive, Suite 700, San Diego, CA, 92122	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	784	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.



AB A novel formulation is provided that serves to specifically inhibit the COX-2 mediated **inflammatory** response in animals. The formulation comprises comprising an effective amount of component I selected from the group consisting of alpha acids and beta acids and an effective amount of at least one component II selected from the group consisting of alpha acids, beta acids, essential oils, fats and waxes, with the proviso that component I and II are not the same compound. The composition provides specific inhibition of cyclooxygenase-2 with little or no effect on cyclooxygenase-1.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 2 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:279940 USPATFULL

TITLE: Anti-**inflammatory** pharmaceutical compositions for reducing **inflammation** and the **treatment** or **prevention** of gastric toxicity

INVENTOR(S): Babish, John G., Brooktondale, NY, UNITED STATES  
Tripp, Matthew L., Gig Harbor, WA, UNITED STATES  
Bland, Jeffrey S., Fox Island, WA, UNITED STATES  
Howell, Terrence, Lansing, NY, UNITED STATES  
Darland, Gary K., Gig Harbor, WA, UNITED STATES  
Lerman, Robert H., Gig Harbor, WA, UNITED STATES  
Lukaczer, Daniel O., Gig Harbor, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004219240 ✓	A1	20041104
APPLICATION INFO.:	US 2004-774048	A1	20040205 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-885721, filed on 20 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2003-689856, filed on 20 Oct 2003, PENDING Continuation-in-part of Ser. No. US 2003-464410, filed on 18 Jun 2003, PENDING Continuation-in-part of Ser. No. US 2003-400293, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-401283, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-464834, filed on 18 Jun 2003, PENDING Continuation-in-part of Ser. No. US 2003-400293, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-401283, filed on 26 Mar 2003, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-472460P	20030522 (60)
	US 2003-450237P	20030225 (60)
	US 2003-450237P	20030225 (60)
	US 2002-420383P	20021021 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Cathryn Campbell, McDERMOTT, WILL & EMERY, Suite 700, 4370 La Jolla Village Drive, San Diego, CA, 92122	
NUMBER OF CLAIMS:	36	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	20 Drawing Page(s)	

LINE COUNT: 2855

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides hops (*Humulus lupulus*) extracts or derivatives thereof for use in **treating** a patient prophylactically and/or **therapeutically** for ulcerogenic-type disorders of the stomach and/or intestines. The ulcerogenic disorders can be of the type chemically induced, environmentally-induced, infection-induced, and/or stress-induced. The invention also provides a pharmaceutical composition comprising an active amount of hops extracts or derivatives thereof, in combination with an analgesic compound and/or an anti-**inflammatory** compound. The invention further provides for use of hops extracts or derivatives thereof, significantly reducing and/or **therapeutically treating** ulcerogenic-type disorders of the stomach and/or intestines.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:196488 USPATFULL

TITLE: Compositions that **treat** or inhibit pathological conditions associated with **inflammatory** response

INVENTOR(S): Tripp, Matthew L., Gig Harbor, WA, UNITED STATES  
 Babish, John G., Brooktondale, NY, UNITED STATES  
 Bland, Jeffrey S., Fox Island, WA, UNITED STATES  
 Darland, Gary K., Gig Harbor, WA, UNITED STATES  
 Lerman, Robert, Gig Harbor, WA, UNITED STATES  
 Lukaczer, Daniel O., Gig Harbor, WA, UNITED STATES  
 Liska, DeAnn J., Tacoma, WA, UNITED STATES  
 Howell, Terrence, Lansing, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004151792	A1	20040805
APPLICATION INFO.:	US 2003-689856	A1	20031020 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2003-464410, filed on 18 Jun 2003, PENDING Continuation-in-part of Ser. No. US 2003-400293, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-401283, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-464834, filed on 18 Jun 2003, PENDING Continuation-in-part of Ser. No. US 2003-400293, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-401283, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2001-885721, filed on 20 Jun 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-450237P	20030225 (60)
	US 2002-420383P	20021021 (60)
	US 2003-450237P	20030225 (60)
	US 2002-420383P	20021021 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Cathryn Campbell, McDERMOTT, WILL & EMERY, 7th Floor, 4370 La Jolla Village Drive, San Diego, CA,	

92122  
NUMBER OF CLAIMS: 213  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 9 Drawing Page(s)  
LINE COUNT: 4870

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A natural formulation of compounds that would to modulate **inflammation** is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit **inflammatory** response selectively in target cells. The compositions containing at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivatives or conjugates thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 4 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:177932 USPATFULL  
TITLE: Anti-**inflammatory** cyclooxygenase-2  
selective inhibitors  
INVENTOR(S): Kuhrts, Eric H., Bodega, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004137096	A1	20040715
APPLICATION INFO.:	US 2003-340183	A1	20030109 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	THORPE NORTH & WESTERN, LLP., 8180 SOUTH 700 EAST, SUITE 200, P.O. BOX 1219, SANDY, UT, 84070		
NUMBER OF CLAIMS:	58		
EXEMPLARY CLAIM:	1		
LINE COUNT:	729		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a novel anti-**inflammatory** pharmaceutical composition that exhibits potent and selective inhibition of the cyclooxygenase-2 (COX-2) enzyme. The formulation consists of a hops extract that exhibits COX-2 selectivity as defined by dividing the IC50 COX-2/IC50COX-1 concentrations that are determined by testing with the William Harvey Whole Blood Assay (WHMA), and falls in the range of 0.011 to 0.2. Such compositions may also optionally contain high levels of alpha acids and low levels of beta acids, some flavonoid compounds, and virtually no essential oils. Such compositions are useful for **treating** conditions that manifest as **inflammatory** pain, or are impacted by the COX-2 enzyme. The recited compositions are particularly beneficial for **treating** osteoarthritis and rheumatoid arthritis, and can be used for chronic pain with reduced gastric side-effects.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 5 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:151069 USPATFULL  
TITLE: Modulation of **inflammation** by hops  
fractions and derivatives

INVENTOR(S): Tripp, Matthew L., Gig Harbor, WA, UNITED STATES  
 Babish, John G., Brooktondale, NY, UNITED STATES  
 Bland, Jeffrey S., Fox Island, WA, UNITED STATES  
 Darland, Gary K., Gig Harbor, WA, UNITED STATES  
 Lerman, Robert, Gig Harbor, WA, UNITED STATES  
 Lukaczer, Daniel O., Gig Harbor, WA, UNITED STATES  
 Liska, DeAnn J., Tacoma, WA, UNITED STATES  
 Howell, Terrence, Lansing, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004115290	A1	20040617
APPLICATION INFO.:	US 2003-464834	A1	20030618 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2003-400293, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2003-401283, filed on 26 Mar 2003, ABANDONED Continuation-in-part of Ser. No. US 2001-885721, filed on 20 Jun 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-450237P	20030225 (60)
	US 2002-420383P	20021021 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614	
NUMBER OF CLAIMS:	34	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	
LINE COUNT:	1824	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A natural formulation of compounds that would to modulate **inflammation** is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit **inflammatory** response selectively in target cells. The compositions containing at least one fraction isolated or derived from hops.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 6 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:113741 USPATFULL

TITLE: Synergistic compositions that **treat** or inhibit pathological conditions associated with **inflammatory** response

INVENTOR(S): Tripp, Matthew L., Gig Harbor, WA, UNITED STATES  
 Babish, John G., Brooktondale, NY, UNITED STATES  
 Bland, Jeffrey S., Fox Island, WA, UNITED STATES  
 Darland, Gary K., Gig Harbor, WA, UNITED STATES  
 Lerman, Robert, Gig Harbor, WA, UNITED STATES  
 Lukaczer, Daniel O., Gig Harbor, WA, UNITED STATES  
 Liska, DeAnn J., Tacoma, WA, UNITED STATES  
 Howell, Terrence, Lansing, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004086580	A1	20040506

APPLICATION INFO.: US 2003-464410 A1 20030618 (10)  
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-400293,  
 filed on 26 Mar 2003, ABANDONED  
 Continuation-in-part of Ser. No. US 2003-401283,  
 filed on 26 Mar 2003, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-450237P	20030225 (60)
	US 2002-420383P	20021021 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614	
NUMBER OF CLAIMS:	115	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	8 Drawing Page(s)	
LINE COUNT:	3051	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A natural formulation of compounds that would to modulate **inflammation** is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit **inflammatory** response selectively in target cells. The compositions containing at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivatives or conjugates thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 7 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:165539 USPATFULL  
 TITLE: Complex mixtures exhibiting selective inhibition of cyclooxygenase-2  
 INVENTOR(S): Babish, John G., Brooktondale, NY, UNITED STATES  
 Howell, M. Terrence, Dryden, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003113393	A1	20030619
APPLICATION INFO.:	US 2002-280198	A1	20021024 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-885721, filed on 20 Jun 2001, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
LINE COUNT:	862		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel formulation is provided that serves to specifically inhibit the COX-2 mediated **inflammation** response in animals. The formulation comprises comprising an effective amount of component I selected from the group consisting of alpha acids and beta acids and an effective amount of at least one component II selected from the

group consisting of alpha acids, beta acids, essential oils, fats and waxes, with the proviso that component I and II are not the same compound. The composition provides specific inhibition of cyclooxygenase-2 with little or no effect on cyclooxygenase-1.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 8 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:140187 USPATFULL

TITLE: Curcuminoid compositions exhibiting synergistic inhibition of the expression and/or activity of cyclooxygenase-2

INVENTOR(S): Babish, John G., Brooktondale, NY, UNITED STATES  
Howell, Terrence M., Freeville, NY, UNITED STATES  
Pacioretty, Linda M., Brooktondale, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003096027 ✓	A1	20030522
APPLICATION INFO.:	US 2002-282236	A1	20021025 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-335062P	20011026 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Page(s)	
LINE COUNT:	1186	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel formulation is provided that serves to inhibit the **inflammatory** response in animals. The formulation comprises, as a first component an effective amount of a curcuminoid species and an effective amount of a second component selected from the group consisting of an alpha-acid species or a beta-acid species or derivatives thereof. The composition provides synergistic anti-**inflammatory** effects in response to physical or chemical injury or abnormal immune stimulation due to a biological agent or unknown etiology.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 9 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:10327 USPATFULL

TITLE: Complex mixtures exhibiting selective inhibition of cyclooxygenase-2

INVENTOR(S): Babish, John G., Brooktondale, NY, UNITED STATES  
Howell, M. Terrence, Dryden, NY, UNITED STATES

PATENT ASSIGNEE(S): ASHNI NATURACEUTICALS, INC. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003008021 ✓	A1	20030109
APPLICATION INFO.:	US 2001-885721	A1	20010620 (9)
DOCUMENT TYPE:	Utility		

FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: THORPE NORTH WESTERN, 8180 SOUTH 700 EAST, SUITE  
 200, P.O. BOX 1219, SANDY, UT, 84070  
 NUMBER OF CLAIMS: 50  
 EXEMPLARY CLAIM: 1  
 LINE COUNT: 941

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A novel formulation is provided that serves to specifically inhibit the COX-2 mediated **inflammatory** response in animals. The formulation comprises comprising an effective amount of component I selected from the group consisting of alpha acids and beta acids and an effective amount of at least one component II selected from the group consisting of alpha acids, beta acids, essential oils, fats and waxes, with the proviso that component I and II are not the same compound. The composition provides specific inhibition of cyclooxygenase-2 with little or no effect on cyclooxygenase-1.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 10 OF 10 USPATFULL on STN  
 ACCESSION NUMBER: 97:14737 USPATFULL  
 TITLE: **Treating** osteoporosis with humulones.  
 INVENTOR(S): Tobe, Hiroyasu, Kanagawa, Japan  
 Kitamura, Kazuyuki, Saitama, Japan  
 PATENT ASSIGNEE(S): Hoechst Japan Limited, Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5604263		19970218
APPLICATION INFO.:	US 1995-420728		19950410 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1994-73230	19940412
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Criares, Theodore J.	
LEGAL REPRESENTATIVE:	Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
LINE COUNT:	389	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

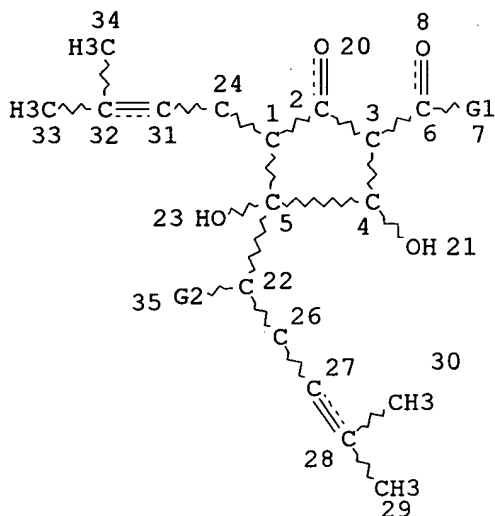
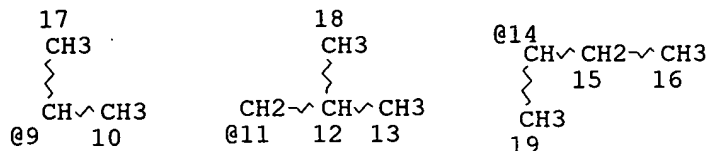
AB A pharmaceutical composition for **treating** osteoporosis which comprises as an active ingredient an effective amount of one or more compounds selected from the-group comprising humulone, cohumulone, adhumulone, isohumulone, isocohumulone and isoadhumulone in combination with a pharmaceutically acceptable carrier or excipient. Humulone, cohumulone, adhumulone are the compounds belonging to  $\alpha$  acids which are an ingredient extracted from hops, whilst isohumulone, isocohumulone and isoadhumulone are the compounds belonging to iso  $\alpha$  acid derivatives which are isomers of  $\alpha$  acids.

The above described compounds have a bone resorption inhibiting activity and are useful for **treating** osteoporosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MARPAT' ENTERED AT 12:29:26 ON 20 APR 2005)

L3 STR



VAR G1=9/11/14

VAR G2=C/O

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:

ECLEVEL IS LIM ON ALL NODES

ALL RING(S) ARE ISOLATED

L17 5 SEA FILE=MARPAT SSS FUL L3 (MODIFIED ATTRIBUTES)

L18 4 SEA FILE=MARPAT ABB=ON PLU=ON L17/COMPLETE

*← Eliminates incomplete iterations*

L18 ANSWER 1 OF 4 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 141:400871 MARPAT

TITLE: Anti-inflammatory pharmaceutical compositions for reducing inflammation and the treatment or prevention of gastric toxicity

INVENTOR(S): Babish, John G.; Tripp, Matthew L.; Bland, Jeffrey S.; Howell, Terrence; Darland, Gary K.; Lerman, Robert H.; Lukaczer, Daniel O.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part of



U.S. Ser. No. 689,856.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004219240	A1	20041104	US 2004-774048	20040205
US 2003008021	A1	20030109	US 2001-885721	20010620
US 2004086580	A1	20040506	US 2003-464410	20030618
US 2004115290	A1	20040617	US 2003-464834	20030618
US 2004151792	A1	20040805	US 2003-689856	20031020

PRIORITY APPLN. INFO.:

US 2001-885721	20010620
US 2002-420383P	20021021
US 2003-450237P	20030225
US 2003-400293	20030326
US 2003-401283	20030326
US 2003-472460P	20030522
US 2003-464410	20030618
US 2003-464834	20030618
US 2003-689856	20031020

AB The invention provides hops ( *Humulus lupulus* ) exts. or derivs. thereof, such as humulone, cohumulone, adhumulone, isohumulone, etc., for use in treating a patient prophylactically and/or therapeutically for ulcerogenic-type disorders of the stomach and/or intestines. The ulcerogenic disorders can be induced chemical, environmentally, by infection, and/or by stress. The invention also provides a pharmaceutical composition comprising an active amount of hops exts. or derivs. thereof, in combination with an analgesic compound and/or an anti-inflammatory compound. The invention further provides for use of hops exts. or derivs. thereof, significantly reducing and/or therapeutically treating ulcerogenic-type disorders of the stomach and/or intestines. For example, the hop preparation Redihop containing rho-iso- $\alpha$ -acids when combined with NSAIDs (ibuprofen and aspirin) not only attenuated the gastropathy of NSAIDs by decreasing an inhibition of PGE2 synthesis in AGS human gastric mucosal cells, but also increased therapeutic indexes of both ibuprofen and aspirin.

L18 ANSWER 2 OF 4 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 141:179610 MARPAT

TITLE: pharmaceutical and nutraceutical compositions containing extracts from hop and rosemary for treatment and prevention of inflammatory-related disorders

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.; Darland, Gary K.; Lerman, Robert; Lukaczer, Daniel O.; Liska, Deann J.; Howell, Terrence

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 66 pp., Cont.-in-part of U.S. Pat. Appl. 2004 86,580.  
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searcher : Shears 571-272-2528

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 US 2004151792 A1 20040805  
 US 2003008021 A1 20030109  
 US 2004086580 A1 20040506  
 US 2004115290 A1 20040617  
 US 2004219240 A1 20041104

PRIORITY APPLN. INFO.:

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 US 2003-689856 20031020  
 US 2001-885721 20010620  
 US 2003-464410 20030618  
 US 2003-464834 20030618  
 US 2004-774048 20040205  
 US 2001-885721 20010620  
 US 2002-420383P 20021021  
 US 2003-450237P 20030225  
 US 2003-400293 20030326  
 US 2003-401283 20030326  
 US 2003-464410 20030618  
 US 2003-464834 20030618  
 US 2003-472460P 20030522  
 US 2003-689856 20031020

AB A natural formulation of compds. that would to modulate inflammation is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively in target cells. The compns. containing at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof. For example, an oral dietary supplement containing isocohumulone, dihydroadhumulone, tetrahydroisocohumulone, hexahydroisohumulone from rosemary was found to be able to normalization the joint function after two to ten doses.

L18 ANSWER 3 OF 4 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 140:368679 MARPAT

TITLE: Synergistic compositions that treat or inhibit pathological conditions associated with inflammatory response

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.; Darland, Gary K.; Lerman, Robert; Lukaczer, Daniel O.; Liska, Deann J.; Howell, Terrence

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of U.S. Ser. No. 400,293, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004086580	A1	20040506	US 2003-464410	20030618
WO 2004037180	A2	20040506	WO 2003-US33362	20031020
WO 2004037180	A3	20040930		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,

BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

US 2004151792 A1 20040805 US 2003-689856 20031020  
 US 2004219240 A1 20041104 US 2004-774048 20040205  
 PRIORITY APPLN. INFO.: US 2002-420383P 20021021  
 US 2003-450237P 20030225  
 US 2003-400293 20030326  
 US 2003-401283 20030326  
 US 2001-885721 20010620  
 US 2003-472460P 20030522  
 US 2003-464410 20030618  
 US 2003-464834 20030618  
 US 2003-689856 20031020

AB A natural formulation of compds. that would modulate inflammation is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively in target cells. The compns. contains at least one fraction isolated or derived from hops. Other embodiments relate to combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof. For example, a synergistic inhibition of PGE2 synthesis in target cells by hop CO2 extract containing 30 to 60% alpha-acids and 15 to 45% beta-acids in combination with triterpenoids oleanolic acid and ursolic acid was exhibited.

L18 ANSWER 4 OF 4 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 140:368677 MARPAT

TITLE: Compositions using hops- and rosemary-derived components, triterpenes, and other compounds for the treatment of pathological conditions associated with inflammatory response

INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey S.; Darland, Gary; Lerman, Robert; Lukaczer, Daniel O.; Liska, Deann J.; Howell, Terrence

PATENT ASSIGNEE(S): Metaproteomics, LLC, USA

SOURCE: PCT Int. Appl., 186 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004037180	A2	20040506	WO 2003-US33362	20031020
WO 2004037180	A3	20040930		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,			

EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

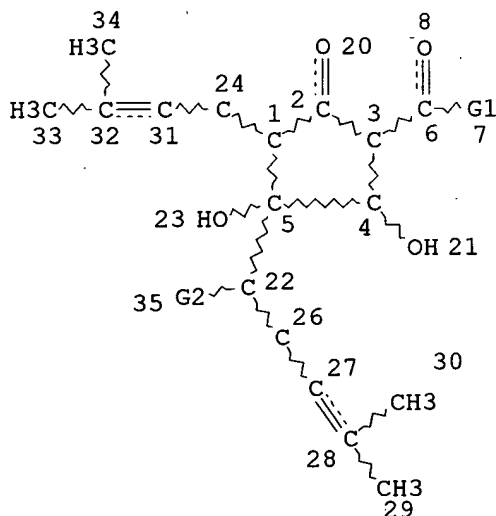
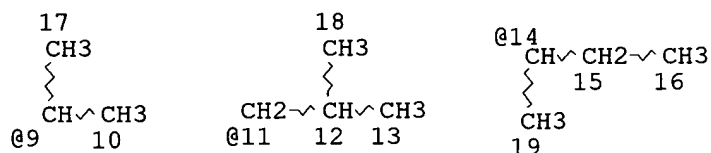
US 2004086580 A1 20040506  
 US 2004115290 A1 20040617  
 PRIORITY APPLN. INFO.:

US 2003-464410 20030618  
 US 2003-464834 20030618  
 US 2002-420383P 20021021  
 US 2003-450237P 20030225  
 US 2003-400293 20030326  
 US 2003-401283 20030326  
 US 2003-464410 20030618  
 US 2003-464834 20030618  
 US 2001-885721 20010620

AB A natural formulation of compds. for modulating inflammation is disclosed. The formulation would also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively in target cells. The compns. contain at least one fraction isolated or derived from hops. Other embodiments disclose combinations of components, including at least one fraction isolated or derived from hops, tryptanthrin and conjugates thereof, rosemary, an extract or compound derived from rosemary, a triterpene species, or a diterpene lactone or derivs. or conjugates thereof.

FILE 'MARPATPREV' ENTERED AT 12:31:18 ON 20 APR 2005

L3 STR



VAR G1=9/11/14

VAR G2=C/O

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:  
ECLEVEL IS LIM ON ALL NODES  
ALL RING(S) ARE ISOLATED

L19 0 SEA FILE=MARPATPREV SSS FUL L3 (MODIFIED ATTRIBUTES)

100.0% PROCESSED 18 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FILE 'REGISTRY' ENTERED AT 12:31:40 ON 20 APR 2005

E ISOHUMULONE/CN 5  
L20 1 SEA ABB=ON PLU=ON ISOHUMULONE/CN  
E ISOCOHUMULONE/CN 5  
L21 1 SEA ABB=ON PLU=ON ISOCOHUMULONE/CN  
E ISOADHUMULONE/CN 5  
L22 1 SEA ABB=ON PLU=ON ISOADHUMULONE/CN  
E DIHYDROISOHUMULONE/CN 5  
L23 1 SEA ABB=ON PLU=ON DIHYDROISOHUMULONE/CN  
E DIHYDROISOADHUMULONE/CN 5  
L24 1 SEA ABB=ON PLU=ON DIHYDROISOADHUMULONE/CN  
E DIHYDROISOCOHUMULONE/CN 5  
L25 1 SEA ABB=ON PLU=ON DIHYDROISOCOHUMULONE/CN  
L26 6 SEA ABB=ON PLU=ON L20 OR L21 OR L22 OR L23 OR L24 OR L25

*-key terms*

FILE 'CAPLUS' ENTERED AT 12:34:15 ON 20 APR 2005

L27 541 SEA ABB=ON PLU=ON L26 OR ISOHUMULONE OR ISOCOHUMULONE OR  
ISOADHUMULONE OR ISO(W) (HUMULONE OR ICOHUMULONE OR  
ADHUMULONE) OR DIHYDROISOHUMULONE OR DIHYDROISOCOHUMULONE  
OR DIHYDROISOADHUMULONE  
L28 8 SEA ABB=ON PLU=ON L27 AND ?INFLAMM?  
L29 90 SEA ABB=ON PLU=ON L27 AND (TREAT? OR THERAP? OR PREVENT?)  
L30 1 SEA ABB=ON PLU=ON L29 AND ADMIN?  
L31 0 SEA ABB=ON PLU=ON (L28 OR L30) NOT L9

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH,  
JICST-EPLUS, JAPIO' ENTERED AT 12:36:40 ON 20 APR 2005)

L32 277 S L27  
L33 5 S L32 AND (INFLAMM? OR ANTIINFLAMM?)  
L34 43 S L32 AND (TREAT? OR THERAP? OR PREVENT?)  
L35 7 S L34 AND ADMIN?  
L36 10 S L33 OR L35  
L37 9 DUP REM L36 (1 DUPLICATE REMOVED)

L37 ANSWER 1 OF 9 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2004-571617 [55] WPIDS  
DOC. NO. CPI: C2004-208693  
TITLE: Composition useful as foodstuffs e.g. non-alcoholic  
drinks and health food for **treating**,  
**preventing** or improving hypertension,  
contains **iso humulones** or hop  
extract and/or isomerized hop extract as active  
ingredient.

DERWENT CLASS: B05 D13  
 INVENTOR(S): KONDO, K; MIURA, Y; SATO, T; TAKEUCHI, A; TOMITA, J;  
 YAJIMA, H; YOSHIDA, A; YOSHIDA, K  
 PATENT ASSIGNEE(S): (KIRI) KIRIN BEER KK  
 COUNTRY COUNT: 108  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004064818	A1	20040805	(200455)*	JA	37
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004064818	A1	WO 2004-JP324	20040116

PRIORITY APPLN. INFO: JP 2003-392602 20031121; JP  
 2003-9644 20030117

AN 2004-571617 [55] WPIDS  
 AB WO2004064818 A UPAB: 20040826

NOVELTY - A composition for hypertension, contains **iso humulones** or hop extract and/or isomerized hop extract as an active ingredient.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method for **treating, preventing** or improving hypertension, blood vessel flexibility, vascular-endothelial function and vasodilation or blood flow promotion, which involves **administering iso humulones** or hop extract and/or isomerized hop extract; and

(2) use of **iso humulones** or hop extract and/or isomerized hop extract for the manufacture of composition for **treating, preventing** or improving hypertension, blood vessel flexibility, vascular-endothelial function and vasodilation or blood flow promotion.

ACTIVITY - Hypotensive; Vasotropic; Hepatropic; Antiarteriosclerotic.

20 Men and women (43-65 years old) having systolic pressure of 103-158 mmHg and fasting blood glucose level of 110-146 mg/dl were divided into two groups. The test group was **administered** twice daily with capsule containing hop extract. The control group was **administered** with placebo. After 12 weeks, the blood sampling and blood pressure measurement were performed. The result showed that the hop extract had significant effect in reducing systolic pressure and fasting blood glucose level when compared to the control.

MECHANISM OF ACTION - None Given.

USE - The composition is useful as foodstuffs such as non-alcoholic drinks e.g. tea beverage, health food, functional food and food for **treating** specified health condition for **treating, preventing** or improving hypertension,

blood vessel flexibility, vascular-endothelial function, vasodilation or blood flow promotion (claimed), hepatopathy and arteriosclerosis.

ADVANTAGE - The composition is safe and has excellent antihypertensive effect.

DESCRIPTION OF DRAWING(S) - The figure shows a graph representing the effect of **iso humulones** with respect to rat aorta sample contracted by 80 mM potassium chloride. (Drawing includes non-English language text).  
Dwg.1/5

L37 ANSWER 2 OF 9 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-375814 [35] WPIDS  
 CROSS REFERENCE: 2003-210109 [20]; 2004-794413 [78]  
 DOC. NO. CPI: C2004-141289  
 TITLE: Composition used for treating e.g.  
**inflammation**, ophthalmic diseases and nervous system disorders, comprises fraction isolated or derived from hops and e.g. rosemary, compound or extract derived from rosemary and/or triterpine species.  
 DERWENT CLASS: B05  
 INVENTOR(S): BABISH, J G; BLAND, J S; DARLAND, G; HOWELL, T; LERMAN, R; LISKA, D J; LUKACZER, D O; TRIPP, M L; BURAK, G J Q; DORN, P; GREENBERG, J C; PAZ, F J; DARLAND, G K  
 PATENT ASSIGNEE(S): (META-N) METAPROTEOMICS LLC; (WMSG-N) WMS GAMING INC; (BABI-I) BABISH J G; (BLAN-I) BLAND J S; (DARL-I) DARLAND G K; (HOWE-I) HOWELL T; (LERM-I) LERMAN R; (LISK-I) LISKA D J; (LUKA-I) LUKACZER D O; (TRIP-I) TRIPP M L  
 COUNTRY COUNT: 106  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2004037180	A2	20040506	(200435)*	EN	186
RW:	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
US 2004086580	A1	20040506	(200435)		
US 2004115290	A1	20040617	(200440)		
US 2004151792	A1	20040805	(200452)		
AU 2003286549	A1	20040513	(200468)		
CA 2460213	A1	20040927	(200470)	EN	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004037180	A2	WO 2003-US33362	20031020
US 2004086580	A1	Provisional	US 2002-420383P
		Provisional	US 2003-450237P
		CIP of	US 2003-400293
		CIP of	US 2003-401283
			US 2003-464410
			20030618

US 2004115290	A1	CIP of	US 2001-885721	20010620
		Provisional	US 2002-420383P	20021021
		Provisional	US 2003-450237P	20030225
		CIP of	US 2003-400293	20030326
		CIP of	US 2003-401283	20030326
			US 2003-464834	20030618
US 2004151792	A1	CIP of	US 2001-885721	20010620
		Provisional	US 2002-420383P	20021021
		Provisional	US 2003-450237P	20030225
		CIP of	US 2003-400293	20030326
		CIP of	US 2003-401283	20030326
		CIP of	US 2003-464410	20030618
		CIP of	US 2003-464834	20030618
			US 2003-689856	20031020
AU 2003286549	A1		AU 2003-286549	20031020
CA 2460213	A1		CA 2004-2460213	20040308

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003286549	A1 Based on	WO 2004037180

PRIORITY APPLN. INFO: US 2003-464834 20030618; US  
 2002-420383P 20021021; US  
 2003-450237P 20030225; US  
 2003-400293 20030326; US  
 2003-401283 20030326; US  
 2003-464410 20030618; US  
 2001-885721 20010620; US  
 2003-689856 20031020

AN 2004-375814 [35] WPIDS  
 CR 2003-210109 [20]; 2004-794413 [78]  
 AB WO2004037180 A UPAB: 20041206

NOVELTY - Composition (A) comprises a fraction (C) isolated or derived from hops and a second component comprising at least one of rosemary, a compound derived from rosemary, an extract derived from rosemary, a triterpine species, a diterpine lactose species or tryptanthrin.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for determining potential gastrointestinal toxicity of an **antiinflammatory** agent which comprises:

(a) contacting an AGS gastric mucosal cell with an **antiinflammatory** agent;

(b) contacting a target **inflammatory** cell with the **antiinflammatory** agent;

(c) determining the IC50 of prostaglandin E2 (PGE2) expression for the **inflammatory** agent in each AGS cell and the target **inflammatory** cell, and

(d) determining the ratio of the IC50 value of the AGS cell to the IC50 value of the target **inflammatory** cell, where a ratio of greater than 1 indicates decreased potential gastrointestinal toxicity and of less than 1 indicates increased potential gastrointestinal toxicity.

ACTIVITY - **Antiinflammatory**; Antiarthritic; Cytostatic; Anti-HIV; Antiasthmatic; Anorectic; Ophthalmological; Gynecological; Dermatological; Gastrointestinal-Gen.; Antiallergic; Neuroprotective; Immunosuppressive; Antibacterial; Respiratory-Gen.; CNS-Gen; Antiarteriosclerotic; Virucide; Osteopathic.

MECHANISM OF ACTION - COX-2 modulator; COX-2 gene inhibitor;



Prostaglandin synthesis inhibitor.

Tests are described, but no suitable results are given.

USE - Used for treating conditions associated with tissue-specific activation of **inflammation**, particularly **inflammation**, **inflammation**-associated disorders, arthritis, asthma, bronchitis, menstrual cramps, tendonitis, bursitis, skin-related conditions, gastrointestinal conditions, cancer, ophthalmic diseases, pulmonary **inflammation**, nervous system disorders, allergic rhinitis, respiratory distress syndrome, endotoxin shock syndrome, atherosclerosis and central nervous damage, HIV-1 replication, cold or flu, and obesity and for modulating nuclear factor (NF)-KB in cells not associated with bone resorption, treating pathological conditions other than osteoporosis associated with tissue specific activation of NF-KB and modulating the **inflammatory** response in cells (all claimed).  
Dwg.0/11

L37 ANSWER 3 OF 9 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2004-794413 [78] WPIDS  
CROSS REFERENCE: 2003-210109 [20]; 2004-375814 [35]  
DOC. NO. CPI: C2004-277182  
TITLE: Composition, useful to reduce gastric toxicity and gastroenteropathy, comprises fraction isolated or derived from hops and non-aspirin, non-steroidal anti-**inflammatory** compounds.  
DERWENT CLASS: B05 D13  
INVENTOR(S): BABISH, J G; BLAND, J S; DARLAND, G K; HOWELL, T; LERMAN, R H; LUKACZER, D O; TRIPP, M L  
PATENT ASSIGNEE(S): (BABI-I) BABISH J G; (BLAN-I) BLAND J S; (DARL-I) DARLAND G K; (HOWE-I) HOWELL T; (LERM-I) LERMAN R H; (LUKA-I) LUKACZER D O; (TRIP-I) TRIPP M L  
COUNTRY COUNT: 1  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004219240	A1	20041104	(200478)*		49

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004219240	A1 CIP of	US 2001-885721	20010620
	Provisional	US 2002-420383P	20021021
	Provisional	US 2003-450237P	20030225
	CIP of	US 2003-400293	20030326
	CIP of	US 2003-401283	20030326
	Provisional	US 2003-472460P	20030522
	CIP of	US 2003-464410	20030618
	CIP of	US 2003-464834	20030618
	CIP of	US 2003-689856	20031020
		US 2004-774048	20040205

PRIORITY APPLN. INFO: US 2004-774048 20040205; US  
2001-885721 20010620; US  
2002-420383P 20021021; US  
2003-450237P 20030225; US  
2003-400293 20030326; US

2003-401283 20030326; US  
 2003-472460P 20030522; US  
 2003-464410 20030618; US  
 2003-464834 20030618; US  
 2003-689856 20031020

AN 2004-794413 [78] WPIDS  
 CR 2003-210109 [20]; 2004-375814 [35]  
 AB US2004219240 A UPAB: 20041206

NOVELTY - Composition (A), comprises fraction isolated or derived from hops (I) and non-aspirin, non-steroidal anti-inflammatory compounds (II).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a composition comprising reduced isoalpha acid isolated from hops and non-steroidal anti-inflammatory compound (B1).

ACTIVITY - Antiinflammatory; Gastrointestinal-Gen.; Antiulcer.

MECHANISM OF ACTION - Cyclooxygenase inhibitor.

USE - Composition (A) is useful to reduce gastric toxicity associated with (B1). (A) is also useful to reduce gastroenteropathy involves ulceration where ulceration is induced through food, herb, bacteria, fungi or drug (all claimed).

ADVANTAGE - Fraction (I) reduces gastric toxicity associated with the non-steroidal anti-inflammatory compounds; and increases the effect of non-steroidal anti-inflammatory drugs on inflammatory and target cells. (I) further increases the therapeutic index for non-steroidal anti-inflammatory drugs.

The influence of Genus A and Genus B hops derivatives on gastric damage caused by the administration of nonsteroidal anti-inflammatory drugs was assessed in rats. The results showed substantial inhibition of nonsteroidal anti-inflammatory drugs-induced gastric damage in rats.  
 Dwg.0/20

L37 ANSWER 4 OF 9 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2004-552348 [53] WPIDS  
 DOC. NO. CPI: C2004-202120  
 TITLE: Composition useful in the treatment of e.g. inflammatory pain comprises a hops extract having specific cyclooxygenase-2 selectivity.  
 DERWENT CLASS: B04  
 INVENTOR(S): KUHRTS, E H; KUHRTS, E  
 PATENT ASSIGNEE(S): (KUHR-I) KUHRTS E H; (LIPO-N) LIPOPROTEIN TECHNOLOGIES INC  
 COUNTRY COUNT: 108  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2004137096	A1	20040715	(200453)*		8
WO 2004062611	A2	20040729	(200453)	EN	
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT					
KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ					
DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP					
KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA					
NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR					
TT TZ UA UG US UZ VC VN YU ZA ZM ZW					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004137096	A1 ✓	US 2003-340183	20030109
WO 2004062611	A2	WO 2004-US613	20040109

PRIORITY APPLN. INFO: US 2003-340183 20030109

AN 2004-552348 [53] WPIDS

AB US2004137096 A UPAB: 20040818

NOVELTY - A composition comprises a hops extract having William Harvey whole blood assay (WHMA) IC50 cyclooxygenase-2/IC50 cyclooxygenase-1 ratio of 0.011.

ACTIVITY - Analgesic; ~~Antiinflammatory~~; Osteopathic; Antiarthritic; Antirheumatic; Gynecological; Antipsoriatic.

MECHANISM OF ACTION - Cyclooxygenase-2 inhibitor. Hops extract containing (weight%): alpha acids (88), beta acids (3.2), iso- alpha acids (3) was dissolved in dimethyl sulfoxide, and tested for COX-2/COX-1 inhibitory activity according to William Harvey whole blood assay. Ibuprofen was used as control. The results showed that the hop extract exhibited selectivity for COX-2 with an IC50 (  $\mu$  M) of 1.4 as compared to 20 of the control.

USE - For reducing **inflammation** and treating **inflammatory** pain in warm-blooded animals (claimed). Also useful in the treatment of disease impacted by cyclooxygenase-2 or a disease that manifests in the up-regulation or induction of cyclooxygenase-2 e.g. osteoarthritis, rheumatoid arthritis, dysmenorrhea and psoriasis.

ADVANTAGE - The composition is void of essential oils, myrcene, beta -caryophyllene, undecan-2-one and 2-methylbut-3-enol. The hops extract has William Harvey whole blood assay (WHMA) IC50 cyclooxygenase-2/IC50 cyclooxygenase-1 ratio of 0.011 - 0.20 (preferably 0.02 - 0.05, especially 0.013 - 0.05, particularly 0.02 - 0.033). The composition treats **inflammatory** pains with reduced gastrointestinal and cardiovascular side effects.

Dwg.0/0

L37 ANSWER 5 OF 9

MEDLINE on STN

DUPLICATE 1

ACCESSION NUMBER: 2004412367 MEDLINE

DOCUMENT NUMBER: PubMed ID: 15178687

TITLE: **Isohumulones**, bitter acids derived from hops, activate both peroxisome proliferator-activated receptor alpha and gamma and reduce insulin resistance.

AUTHOR: Yajima Hiroaki; Ikeshima Emiko; Shiraki Maho; Kanaya Tomoka; Fujiwara Daisuke; Odai Hideharu; Tsuboyama-Kasaoka Nobuyo; Ezaki Osamu; Oikawa Shinichi; Kondo Keiji

CORPORATE SOURCE: Central Laboratories for Key Technology, Kirin Brewery Co., Ltd., Kanagawa 236-0004, Japan..  
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Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
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LANGUAGE: English

FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200410  
 ENTRY DATE: Entered STN: 20040820  
 Last Updated on STN: 20041026  
 Entered Medline: 20041025

AB The peroxisome proliferator-activated receptors (PPARs) are dietary lipid sensors that regulate fatty acid and carbohydrate metabolism. The hypolipidemic effects of fibrates drugs and the **therapeutic** benefits of the thiazolidinedione drugs are due to their activation of PPARalpha and -gamma, respectively. In this study, **isohumulones**, the bitter compounds derived from hops that are present in beer, were found to activate PPARalpha and -gamma in transient co-transfection studies. Among the three major **isohumulone** homologs, **isohumulone** and **isocohumulone** were found to activate PPARalpha and -gamma. Diabetic KK-Ay mice that were **treated** with **isohumulones** (**isohumulone** and **isocohumulone**) showed reduced plasma glucose, triglyceride, and free fatty acid levels (65.3, 62.6, and 73.1%, respectively, for **isohumulone**); similar reductions were found following **treatment** with the thiazolidinedione drug, pioglitazone. **Isohumulone treatment** did not result in significant body weight gain, although pioglitazone **treatment** did increase body weight (10.6% increase versus control group). C57BL/6N mice fed a high fat diet that were **treated** with **isohumulones** showed improved glucose tolerance and reduced insulin resistance. Furthermore, these animals showed increased liver fatty acid oxidation and a decrease in size and an increase in apoptosis of their hypertrophic adipocytes. A double-blind, placebo-controlled pilot study for studying the effect of **isohumulones** on diabetes suggested that **isohumulones** significantly decreased blood glucose and hemoglobin A1c levels after 8 weeks (by 10.1 and 6.4%, respectively, versus week 0). These results suggest that **isohumulones** can improve insulin sensitivity in high fat diet-fed mice with insulin resistance and in patients with type 2 diabetes.

L37 ANSWER 6 OF 9 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 ACCESSION NUMBER: 2003-689606 [65] WPIDS  
 DOC. NO. CPI: C2003-189091  
 TITLE: Agents for **treating** diseases such as diabetes, diabetic complications, lipid metabolism disorders and obesity, comprising peroxisome proliferator-activator receptor activator e.g. ketone compound, hop extract or modified hop extract.  
 DERWENT CLASS: B05 D13  
 INVENTOR(S): FUJIWARA, D; KONDO, K; MIURA, Y; NOZAWA, H; ODAI, H; YAJIMA, H  
 PATENT ASSIGNEE(S): (KIRI) KIRIN BEER KK; (KIRI) KIRIN BREWERY KK  
 COUNTRY COUNT: 103  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003068205	A1	20030821	(200365)*	JA	105
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE					
LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE					
DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					

KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM  
 PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US  
 UZ VC VN YU ZA ZM ZW  
 AU 2003211997 A1 20030904 (200428)  
 JP 2004224795 A 20040812 (200453) 46  
 JP 2004256520 A 20040916 (200461) 48  
 EP 1481671 A1 20041201 (200478) EN  
 R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU  
 LV MC MK NL PT RO SE SI SK TR  
 KR 2004084908 A 20041006 (200512)

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003068205	A1	WO 2003-JP1571	20030214
AU 2003211997	A1	AU 2003-211997	20030214
JP 2004224795	A Div ex	JP 2003-567387	20030214
		JP 2004-18523	20040127
JP 2004256520	A Div ex	JP 2003-567387	20030214
		JP 2004-18533	20040127
EP 1481671	A1	EP 2003-705174	20030214
		WO 2003-JP1571	20030214
KR 2004084908	A	KR 2004-712546	20040813

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003211997	A1 Based on	WO 2003068205
EP 1481671	A1 Based on	WO 2003068205

PRIORITY APPLN. INFO: JP 2002-139700 20020515; JP  
 2002-36798 20020214

AN 2003-689606 [65] WPIDS

AB WO2003068205 A UPAB: 20031009

NOVELTY - Agents for **treating, preventing** or ameliorating diseases comprise a peroxisome proliferator-activator receptor activator selected from ketone compounds (I) - (V) or their salts or solvates, a hop extract or a modified hop extract.

DETAILED DESCRIPTION - Agents for **treating, preventing** or ameliorating diseases comprise a peroxisome proliferator-activator receptor activator selected from ketone compounds of formula (I) - (V) or their salts or solvates, a hop extract or a modified hop extract.

R1, R2, R10, R19 = 1-6C alkyl or 2-6C alkenyl;

R3, R4 = OH, 1-6C alkyl or 2-6C alkenyl;

R5 - R7, R11, R12, R16 - R18 = H, 1-6C alkyl or 2-6C alkenyl;

R8, R9 = H, OH, 1-6C alkyl, 2-6C alkenyl, COR10 or CH(OH)R10;

R13, R14 = OH, 1-6C alkyl, 2-6C alkenyl, COR10 or CH(OH)R10; and provided that R1 and R2, R8 and R9 and R13 and R14 are not both

OH.

An INDEPENDENT CLAIM is also included for foods containing the agents.

ACTIVITY - Anorectic; Antidiabetic; Antilipemic.

In tests, **administration** of **isohumulone** at 0.5 weight% in the diet of C57BL/6 mice fed a high fat diet, significantly (by at least 5%) reduced blood cholesterol levels from 2 weeks.

## MECHANISM OF ACTION - PPAR-Agonist.

USE - As peroxisome proliferator-activator receptor activators for **treating** and **preventing** diabetes (e.g. insulin resistant diabetes), diabetic complications, lipid metabolism disorders, hyperlipemia, lowered insulin tolerance, obesity and weight gain.

ADVANTAGE - The agents are safe and can be **administered** in foods.  
Dwg.0/71

L37 ANSWER 7 OF 9 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
ACCESSION NUMBER: 2003-421347 [39] WPIDS  
DOC. NO. CPI: C2003-110994  
TITLE: Composition for treating e.g. **inflammation** or **inflammation** based diseases, comprising curcuminoid species and alpha- or beta-acid.  
DERWENT CLASS: B05  
INVENTOR(S): BABISH, J G; HOWELL, T M; PACIORETTY, L M; HOWELL, T; PACIORETTY, L  
PATENT ASSIGNEE(S): (BABI-I) BABISH J G; (HOWE-I) HOWELL T M; (PACI-I) PACIORETTY L M; (META-N) METAPROTEOMICS LLC  
COUNTRY COUNT: 102  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003035007	A2	20030501	(200339)*	EN	15
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW					
US 2003096027	A1	20030522	(200341)		
EP 1446136	A2	20040818	(200454)	EN	
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002348096	A1	20030506	(200461)		
KR 2004054738	A	20040625	(200470)		
JP 2005506996	W	20050310	(200518)		57
NZ 532560	A	20050225	(200519)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
✓ WO 2003035007	A2	WO 2002-US34456	20021025
✓ US 2003096027	A1 Provisional	US 2001-335062P	20011026
		US 2002-282236	20021025
✓ EP 1446136	A2	EP 2002-784313	20021025
		WO 2002-US34456	20021025
AU 2002348096	A1	AU 2002-348096	20021025
KR 2004054738	A	KR 2004-706048	20040423
JP 2005506996	W	WO 2002-US34456	20021025
		JP 2003-537576	20021025
NZ 532560	A	NZ 2002-532560	20021025
		WO 2002-US34456	20021025

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1446136	A2 Based on	WO 2003035007
AU 2002348096	A1 Based on	WO 2003035007
JP 2005506996	W Based on	WO 2003035007
NZ 532560	A Based on	WO 2003035007

PRIORITY APPLN. INFO: US 2001-335062P 20011026; US  
2002-282236 20021025

AN 2003-421347 [39] WPIDS

AB WO2003035007 A UPAB: 20030619

NOVELTY - A composition comprises:

(a) curcuminoid species; and

(b) alpha -acid and/or beta -acid or their derivatives.

ACTIVITY - Analgesic; Antipyretic; Antimigraine; Vasotropic;  
**Antiinflammatory**; Antithyroid; Antianemic; Cytostatic;  
Dermatological; Antidiabetic; Neuroprotective; Respiratory-Gen.;  
Cardiant; Antirheumatic; Antiarthritic; Immunosuppressive;  
Antiasthmatic; Antipsoriatic; Vulnerary; Gastrointestinal-Gen.;  
Antiulcer; Ophthalmological; Virucide; Nootropic; Antiallergic;  
Antiarteriosclerotic; Tranquilizer.

MECHANISM OF ACTION - **Inflammatory** response inhibitor;  
Cyclooxygenase-2 (COX-2) enzyme inhibitor.

The inhibition of COX-2 enzyme producing prostaglandin (PGE2) by  
a formulation (A) comprising curcumin and Hops extract (1:10) was  
determined in RAW 267.7 cells. (A) showed an IC50 value of 0.490 micro  
g/ml.

USE - The composition is useful for the preparation of a  
medicament for treating **inflammation** or **inflammation**  
-based diseases, and for reducing the symptoms of osteoarthritis (all  
claimed). It is also useful for treating pain, headache, fever,  
vascular disease, migraine headache, periarteritis nodosa,  
thyroiditis, aplastic anemia, Hodgkin's disease, scleroderma,  
rheumatic fever, type I diabetes, myasthenia gravis, multiple  
sclerosis, sarcoidosis, nephritic syndrome, Behcet's syndrome,  
polymyositis, gingivitis, hypersensitivity, swelling occurring after  
injury, myocardial ischemia, arthritis, rheumatoid arthritis,  
spondyloarthropathies, gouty arthritis, systemic lupus erythematosus,  
juvenile arthritis, asthma, bronchitis, menstrual cramps, tendonitis,  
bursitis, psoriasis, eczema, burns, dermatitis, **inflammatory**  
bowel disease, Crohn's disease, gastritis, irritable bowel syndrome,  
ulcerative colitis, cancer, retinopathy, conjunctivitis, uveitis,  
ocular photophobia, acute injury to the eye tissue, viral infection,  
cystic fibrosis, Alzheimer's disease, allergic rhinitis, respiratory  
distress syndrome, endotoxin shock syndrome, atherosclerosis, central  
nervous system damage resulting from stroke, ischemia and trauma.

ADVANTAGE - The composition exhibits synergistic effect to  
inhibit the inducibility and/or activity of inducible cyclooxygenase-2  
with little or no significant effect on constitutive cyclooxygenase-1.  
Dwg.0/3

L37 ANSWER 8 OF 9 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-210109 [20] WPIDS

CROSS REFERENCE: 2004-375814 [35]; 2004-794413 [78]

DOC. NO. CPI: C2003-053493

TITLE: Composition useful in **treatment** of  
**inflammation**, comprising alpha acid and beta

acid.  
 DERWENT CLASS: B05  
 INVENTOR(S): BABISH, J G; HOWELL, M T; HOWELL, T M  
 PATENT ASSIGNEE(S): (META-N) METAPROTEOMICS LLC; (ASHN-N) ASHNI  
 NATURACEUTICALS INC; (BABI-I) BABISH J G; (HOWE-I)  
 HOWELL M T; (HOWE-I) HOWELL T M  
 COUNTRY COUNT: 101  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2003000185	A2	20030103	(200320)*	EN	11
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW					
MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE					
DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM					
PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ					
VN YU ZA ZM ZW					
US 2003008021	A1	20030109	(200320)		
US 2003113393	A1	20030619	(200341)		
EP 1423132	A2	20040602	(200436)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL					
PT RO SE SI TR					
AU 2002310484	A1	20030108	(200461)		
JP 2004534806	W	20041118	(200476)		41
US 2005042317	A1	20050224	(200515)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003000185	A2	WO 2002-US19617	20020620
✓ US 2003008021	A1	US 2001-885721	20010620
US 2003113393	A1 Div ex	US 2001-885721	20010620
		US 2002-280198	20021024
EP 1423132	A2	EP 2002-737562	20020620
		WO 2002-US19617	20020620
AU 2002310484	A1	AU 2002-310484	20020620
JP 2004534806	W	WO 2002-US19617	20020620
		JP 2003-506631	20020620
US 2005042317	A1	WO 2002-US19617	20020620
		US 2004-480145	20041013

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1423132	A2 Based on	WO 2003000185
AU 2002310484	A1 Based on	WO 2003000185
JP 2004534806	W Based on	WO 2003000185

PRIORITY APPLN. INFO: US 2001-885721 20010620; US  
 2002-280198 20021024

AN 2003-210109 [20] WPIDS  
 CR 2004-375814 [35]; 2004-794413 [78]  
 AB WO2003000185 A UPAB: 20050303  
 NOVELTY - A composition (I) comprises an alpha -acid (a) and a beta  
 -acid (b).



DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of dietary supplementation comprising **administering** (I) to provide 0.01 - 100 mg/kg/day of each (a) and (b).

ACTIVITY - **Antiinflammatory**; Analgesic; Antirheumatic; Antiarthritic; Osteopathic; Dermatological; Immunosuppressive; Antiasthmatic; Gynecological; Antipsoriatic; Antiulcer; Cytostatic; Antimigraine; Vasotropic; Antithyroid; Antidiabetic; Neuroprotective; Ophthalmological; Virucide.

MECHANISM OF ACTION - Cyclooxygenase-2 (COX-2) inhibitor.

RAW 264.7 cells were grown in Dulbecco's modified Eagle medium (DMEM), and plated in 96-well tissue culture plate having growth medium (0.2 ml). After 6 - 8 hours, the growth medium (100  $\mu$ l) was removed and replaced with fresh medium. A solution of lipopolysaccharide (LPS) (1 mg/ml) was used to induce the expression of COX-2. On day 2, liquid CO<sub>2</sub> extract of varying concentration was added to the medium without fetal bovine serum (FBS) (1 ml) and placed in an incubator for 10 minutes to equilibrate. The medium (100  $\mu$ l) was removed from each well of the cell plates prepared on day one, and a composition (test solution) (100  $\mu$ l), prepared on day two, was added to the cells and incubated for 90 minutes.

LPS in dimethylsulfoxide (DMSO) without FBS was prepared by adding 1 mg/ml DMSO (44  $\mu$ l) to the medium (10 ml). For each well of cells to be stimulated, LPS (20  $\mu$ l) was added and incubated for 24 hours. On day 3 the appearance of the cells was observed and prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) amount was determined. The ability of the test material to inhibit COX-1 synthesis of PGE<sub>2</sub> was determined as described by Noreen, Y., et al (J. Nat. Prod. 61, 2 - 7, 1998). The medium inhibitory concentration of COX-2 inhibition by the CO<sub>2</sub> extract of hops in the RAW 264.7 cell model was 0.024  $\mu$ g/ml and for COX-1 of PGE<sub>2</sub> was 25.5  $\mu$ g/ml. Thus a COX-1/COX-2 specificity of 106 was observed.

USE - As dietary supplementation in a patient suffering from symptoms of **inflammation** (claimed) or **inflammation**-associated disorders such as pain, headaches, off ever, arthritis (including rheumatoid arthritis, spondyloarthropathies, gouty arthritis, osteoarthritis, systemic lupus erythematosus and juvenile arthritis), asthma, bronchitis, menstrual cramps, tendonitis, bursitis, and skin related conditions (such as psoriasis, eczema, burns, dermatitis), gastrointestinal conditions (such as **inflammatory** bowel disease, Crohn's disease, gastritis, irritable bowel syndrome and ulcerative colitis), cancer (such as colorectal cancer), vascular diseases, migraine headaches, periarteritis nodosa, thyroiditis, aplastic anemia, Hodgkin's disease, scleroderma, rheumatic fever, type I diabetes, myasthenia gravis, multiple sclerosis, sarcoidosis, nephrotic syndrome, Behcet's syndrome, polymyositis, gingivitis, hypersensitivity, swelling occurring after injury and myocardial ischemia and ophthalmic diseases (such as retinopathies, conjunctivitis, uveitis, ocular photophobia) and acute injury to the eye tissue; and also for the **treatment** of pulmonary **inflammation** (such as viral infections and cystic fibrosis).

ADVANTAGE - (I) Specifically inhibits or **prevents** the expression of COX-2 enzymatic activity, while having minimal or no effect on COX-1 metabolism, and therefore it can be used at low doses or at current clinical doses with no adverse effects.

Dwg.0/0

TITLE: Pharmaceutical compsn. for **treating**  
osteoporosis - comprises humulone, cohumulone,  
adhumulone, **isohumulone**,  
**isocohumulone** and/or **isoadhumulone**.  
DERWENT CLASS: B05  
INVENTOR(S): KITAMURA, K; TOBE, H  
PATENT ASSIGNEE(S): (FARH) HOECHST JAPAN LTD; (HMRI) HOECHST MARION  
ROUSSEL LTD; (FARH) HOECHST JAPAN KK  
COUNTRY COUNT: 21  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 677289	A2	19951018	(199546)*	EN	7
R: AT BE CH DE DK ES FR GB IT LI LU NL SE					
AU 9516384	A	19951019	(199549)		
NO 9501422	A	19951013	(199549)		
FI 9501702	A	19951013	(199601)		
CA 2146820	A	19951013	(199607)		
JP 07330594	A	19951219	(199608)		6
EP 677289	A3	19961023	(199648)		
US 5604263	A	19970218	(199713)		6
HU 71604	T	19960129	(199738)		
AU 696334	B	19980910	(199848)		
EP 677289	B1	19990113	(199907)	EN	
R: AT BE CH DE DK ES FR GB IT LI LU NL SE					
DE 69507185	E	19990225	(199914)		
ES 2129691	T3	19990616	(199930)		
TW 427901	A	20010401	(200156)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 677289	A2	EP 1995-105177	19950406
AU 9516384	A	AU 1995-16384	19950411
NO 9501422	A	NO 1995-1422	19950411
FI 9501702	A	FI 1995-1702	19950410
CA 2146820	A	CA 1995-2146820	19950411
JP 07330594	A	JP 1995-85405	19950411
EP 677289	A3	EP 1995-105177	19950406
US 5604263	A	US 1995-420728	19950410
HU 71604	T	HU 1995-1043	19950411
AU 696334	B	AU 1995-16384	19950411
EP 677289	B1	EP 1995-105177	19950406
DE 69507185	E	DE 1995-607185	19950406
		EP 1995-105177	19950406
ES 2129691	T3	EP 1995-105177	19950406
TW 427901	A	TW 1995-104477	19950505

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 696334	B Previous Publ.	AU 9516384
DE 69507185	E Based on	EP 677289
ES 2129691	T3 Based on	EP 677289

PRIORITY APPLN. INFO: JP 1994-73230 19940412

AN 1995-352555 [46] WPIDS

AB EP 677289 A UPAB: 19951122

A compsn. for **treating** osteoporosis comprises as active ingredient humulone, cohumulone, adhumulone, **isohumulone**, **isocohumulone** and/or **isoadhumulone**, with a pharmaceutically acceptable carrier or excipient.

USE - The alpha acids and iso-alpha acid derivs. are contained in hop extracts, and have strong inhibitory activity against bone resorption.

Dwg.0/0

ABEQ US 5604263 A UPAB: 19970326

**Treating** osteoporosis comprises **administering** a compsn. contg., as an active ingredient, one or more of humulone, cohumulone, adhumulone, **isohumulone**, **isocohumulone** and **isoadhumulone**.

Dwg.0/0

(FILE 'CABA, AGRICOLA' ENTERED AT 12:39:25 ON 20 APR 2005)

L38 0 S L33

L39 0 S L35

=> fil hom

FILE 'HOME' ENTERED AT 12:41:42 ON 20 APR 2005